RF Measurements on X-Band Structures at Fermilab

T. Khabiboulline
G. Romanov

1. RF quality control after manufacturing.

1.1 Single cell QC.

1.2 In Stack frequency measurements.

2. RF measurements after brazing of parts.

2.1 Frequency measurements of the stack after brazing.

2.2 RF measurements after brazing Coupler + neighbor disk.

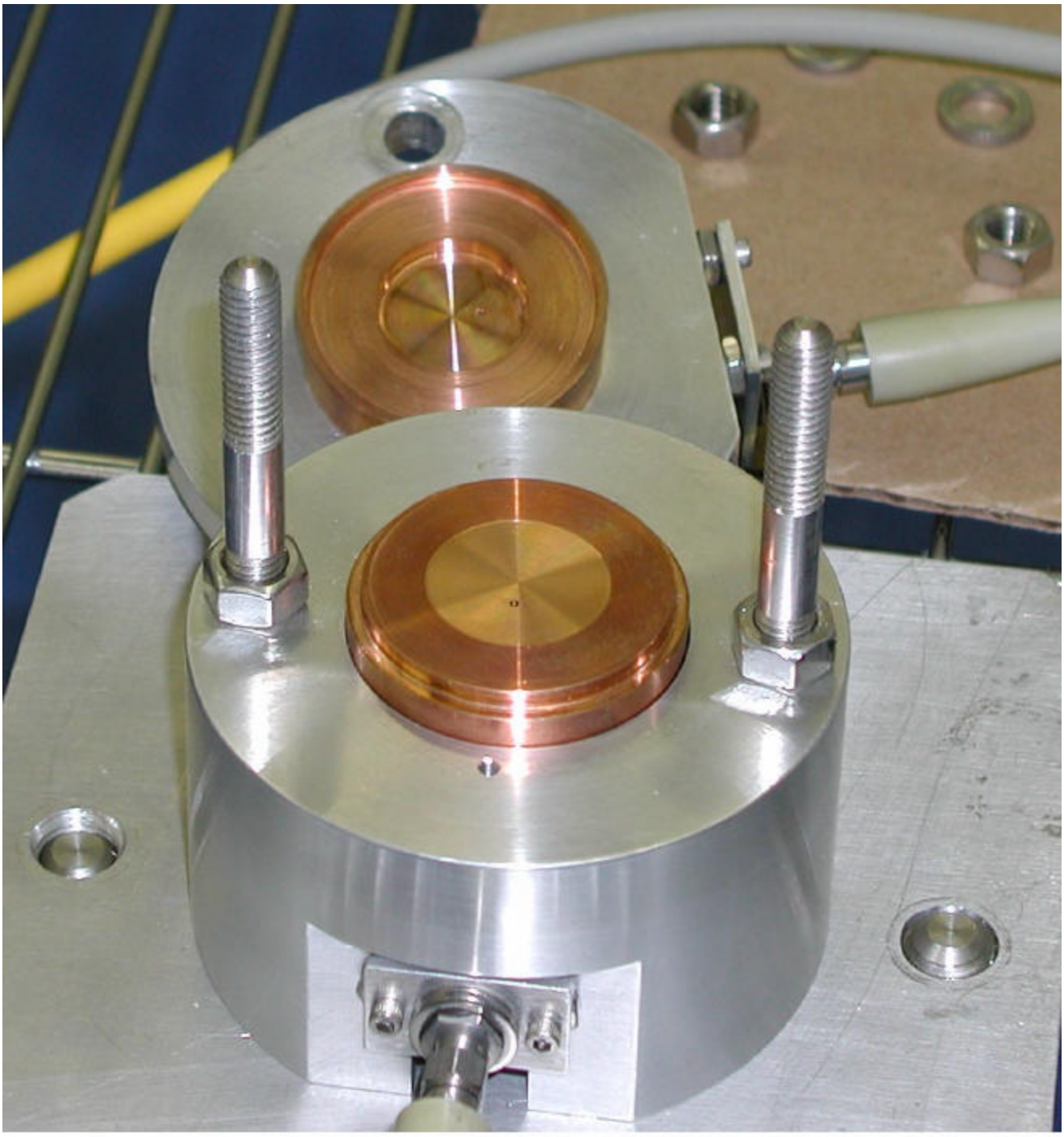
3. RF tuning of brazed cavity.

3.1 Plunger measurement of the couplers.

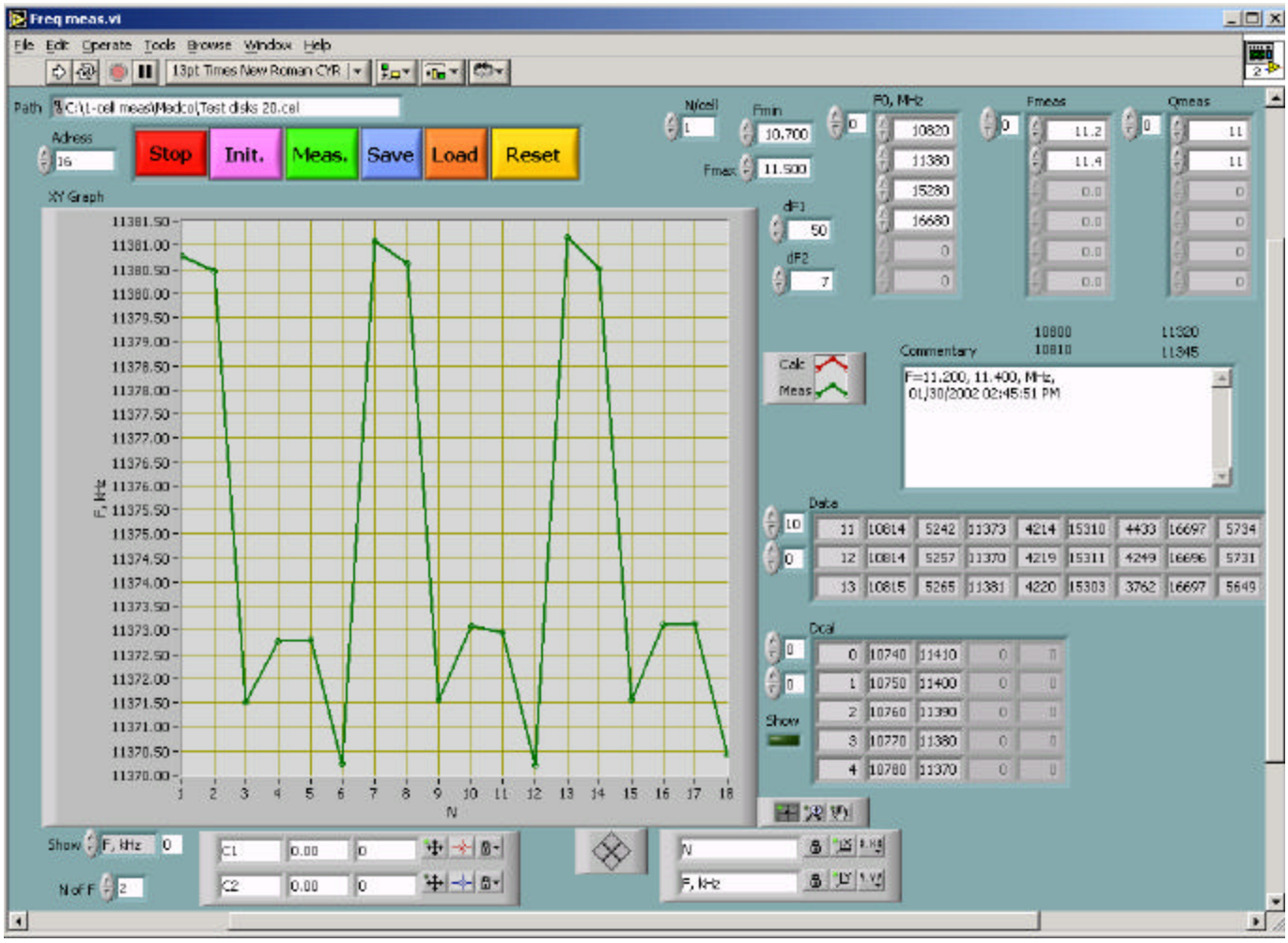
3.2 RF tuning of the structure by bead-pull.

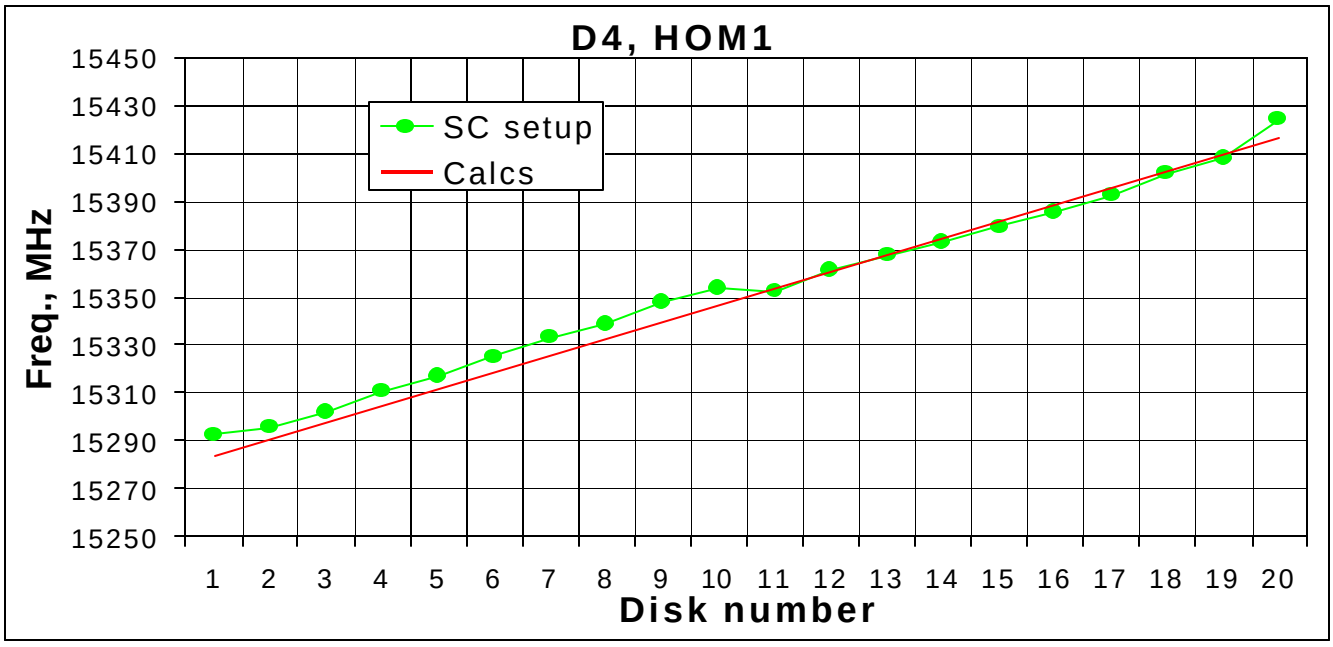
3.3 Final tuning of input coupler to minimize SWR.

Single cell frequency measurement setup

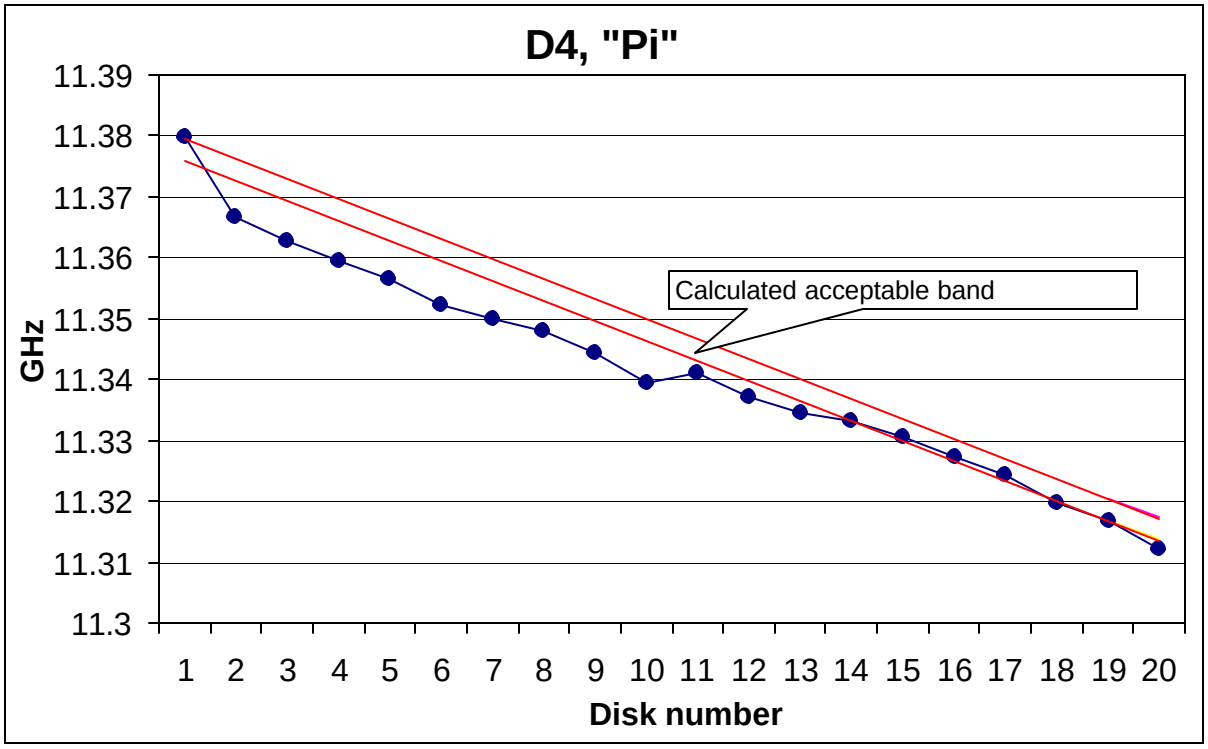


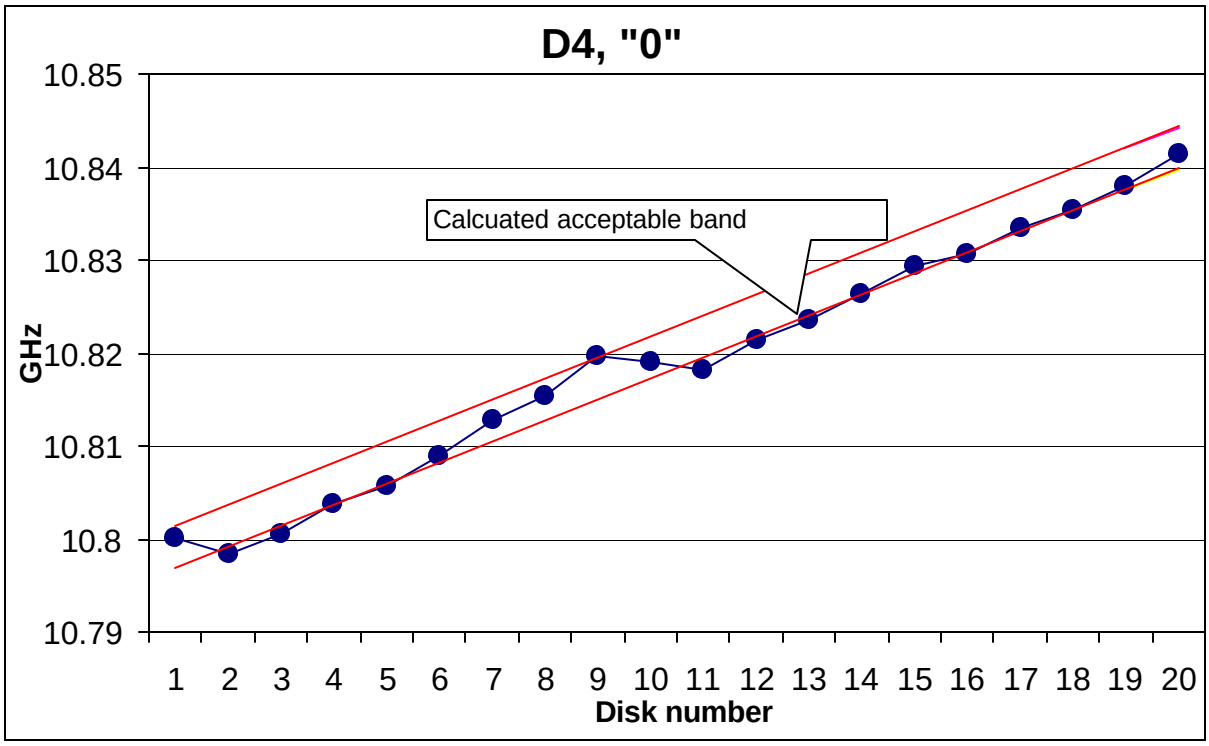
Single cell frequency measurement program.



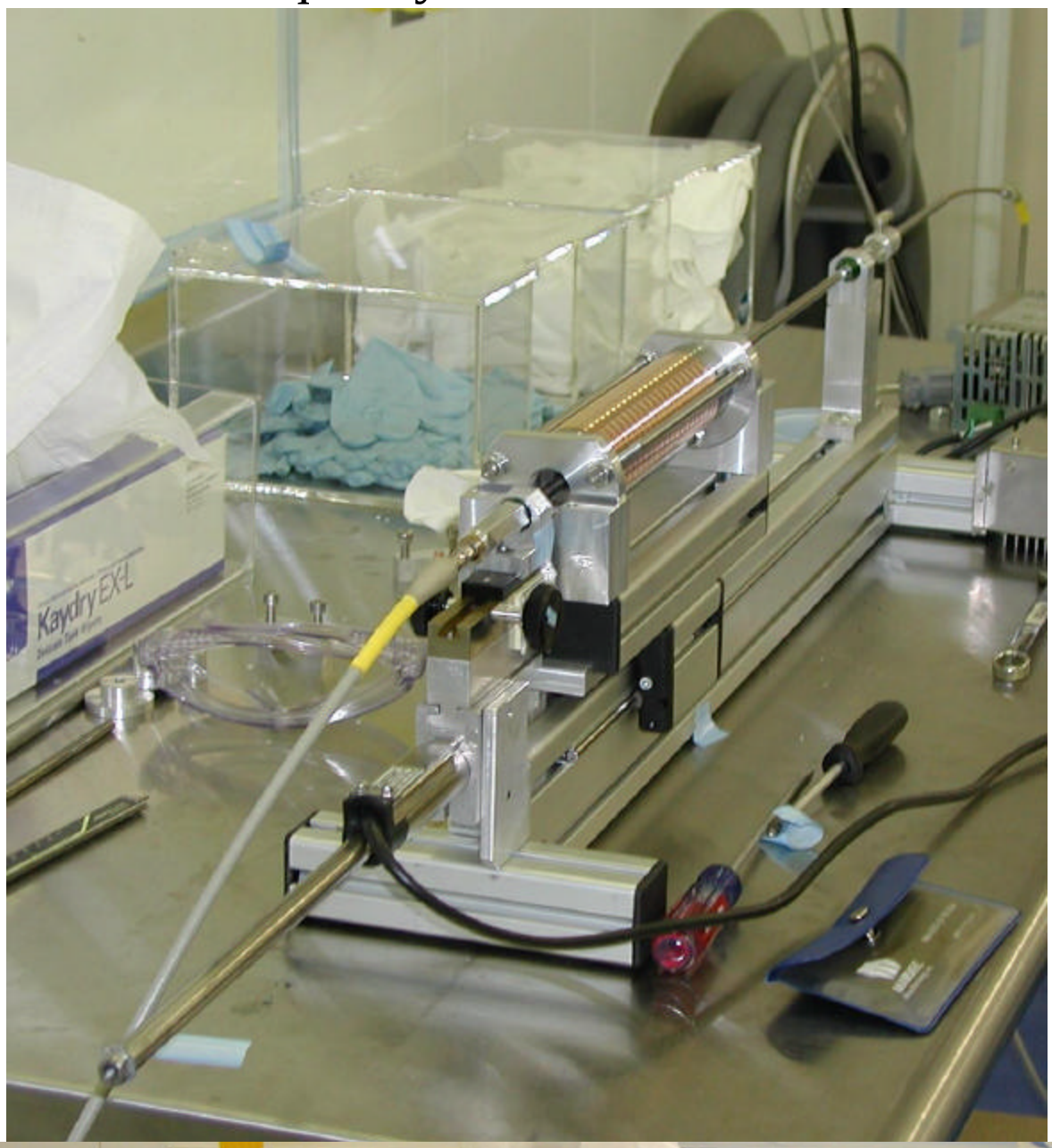


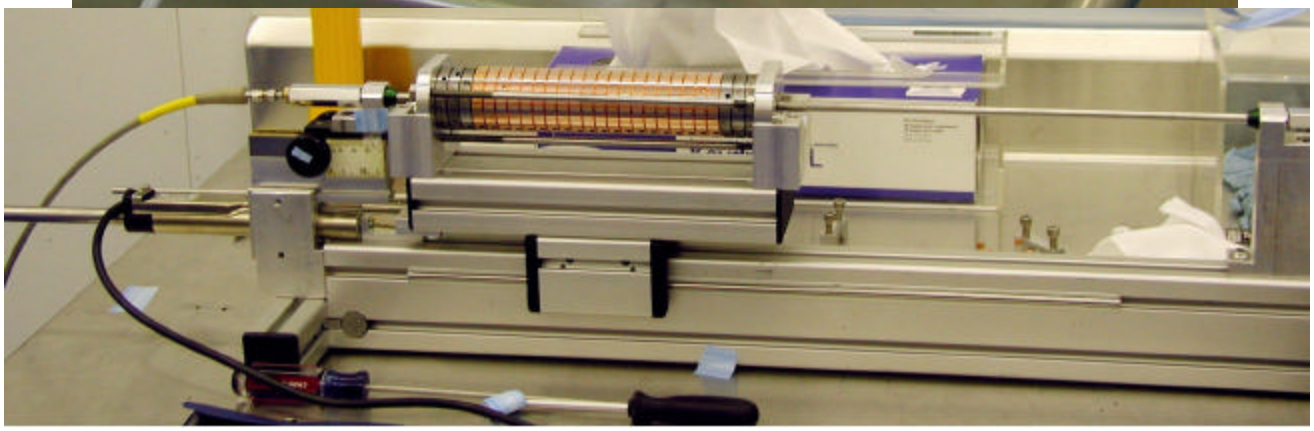
Single cell frequency measurement.



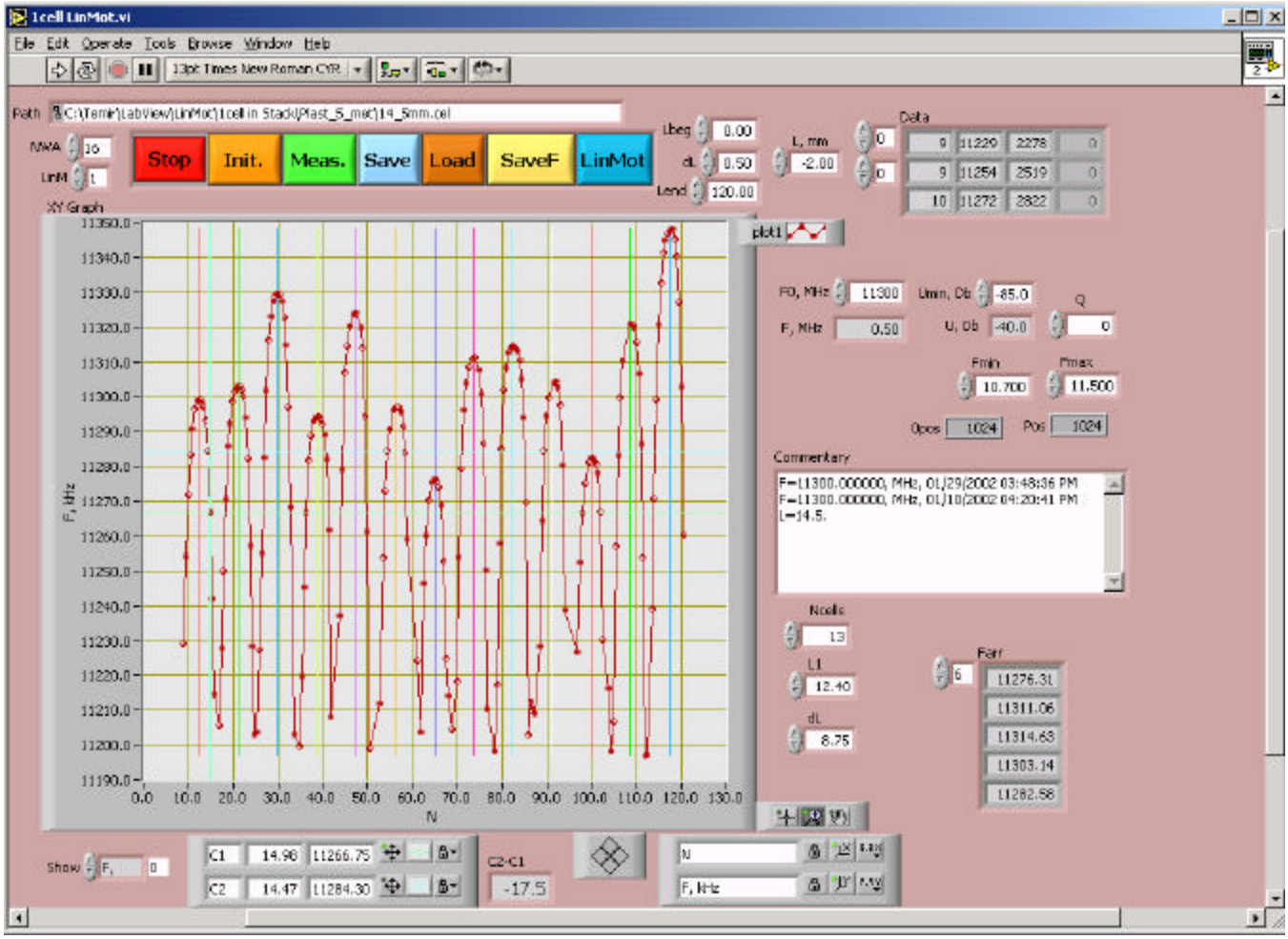


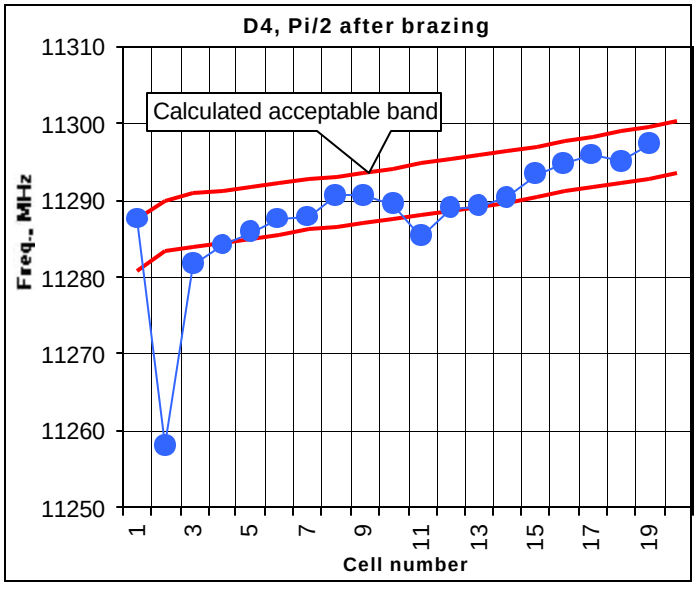
In Stack frequency measurements

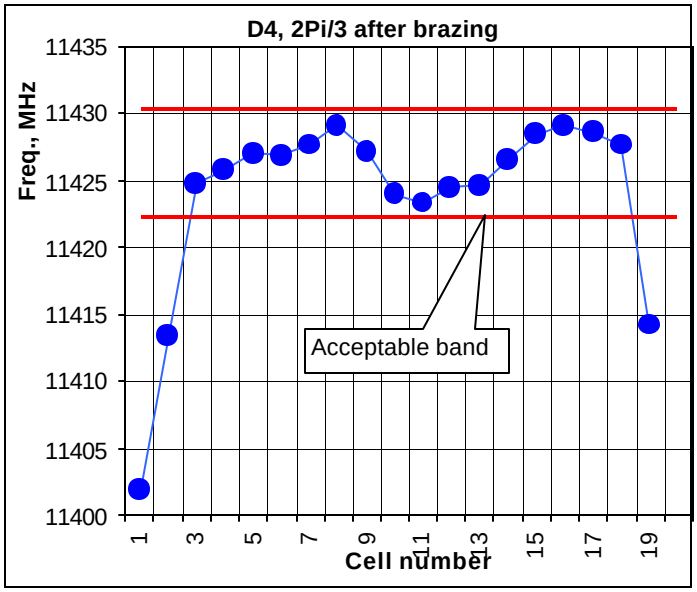




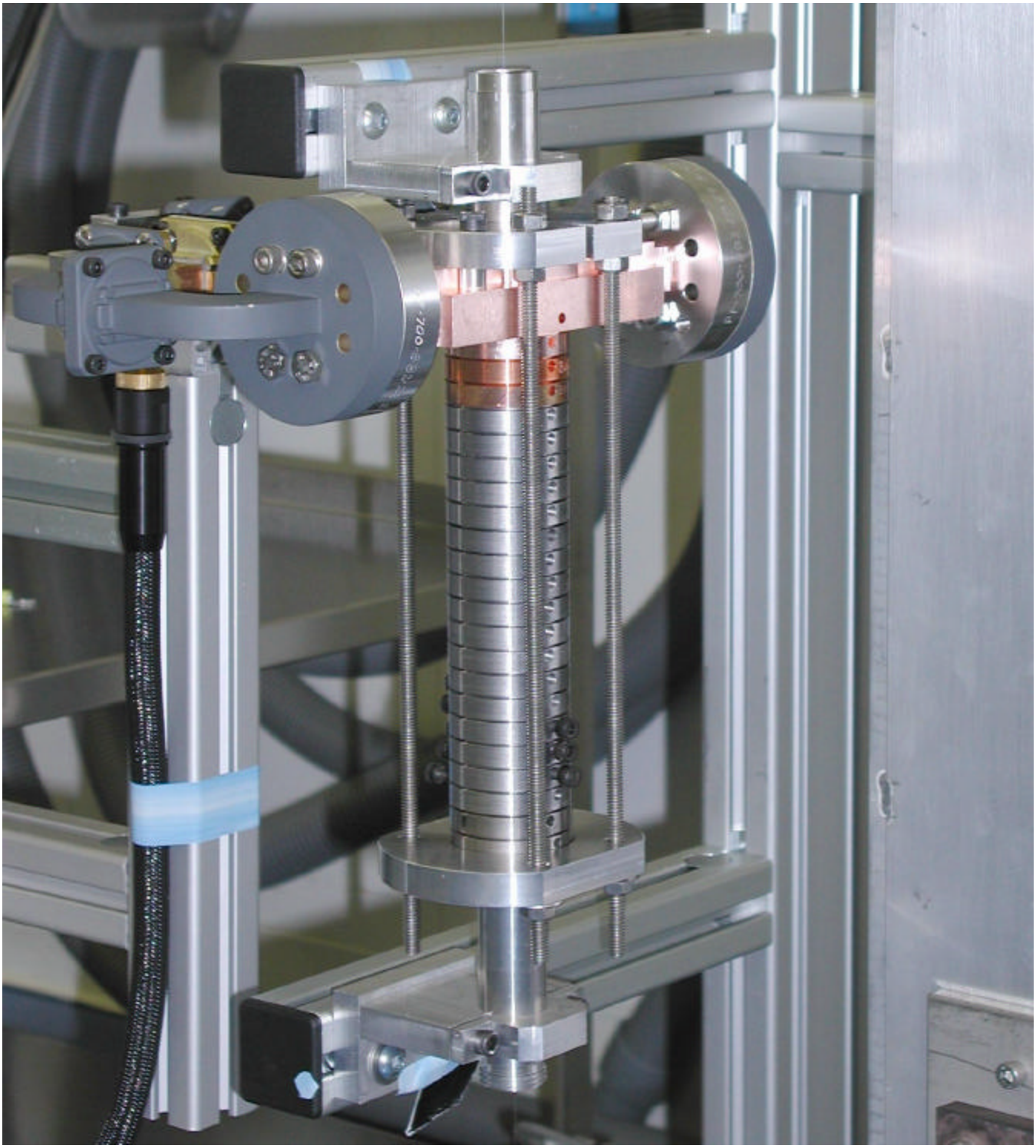
In Stack frequency measurement program.



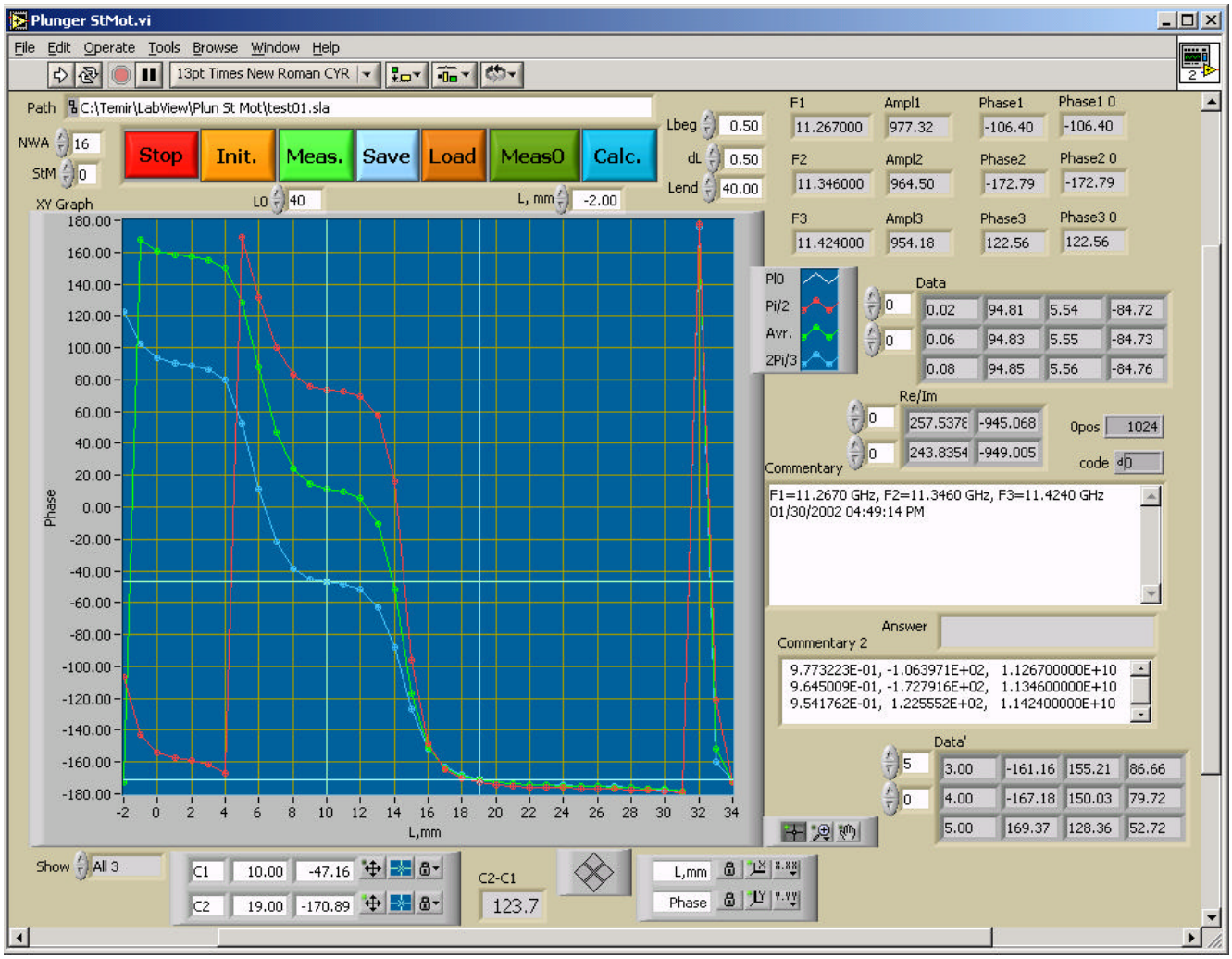


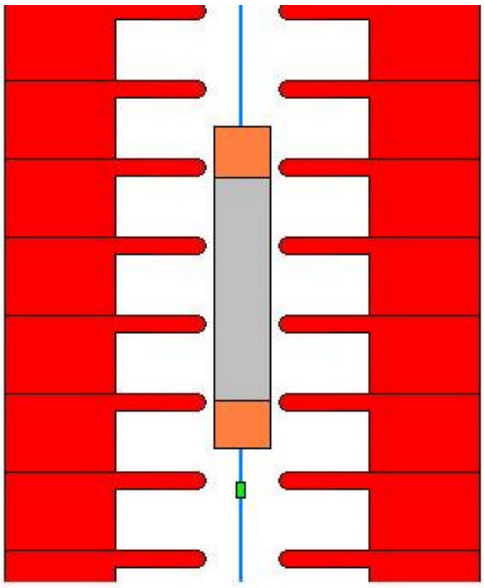


RF measurements after brazing Coupler + neighbor disk.

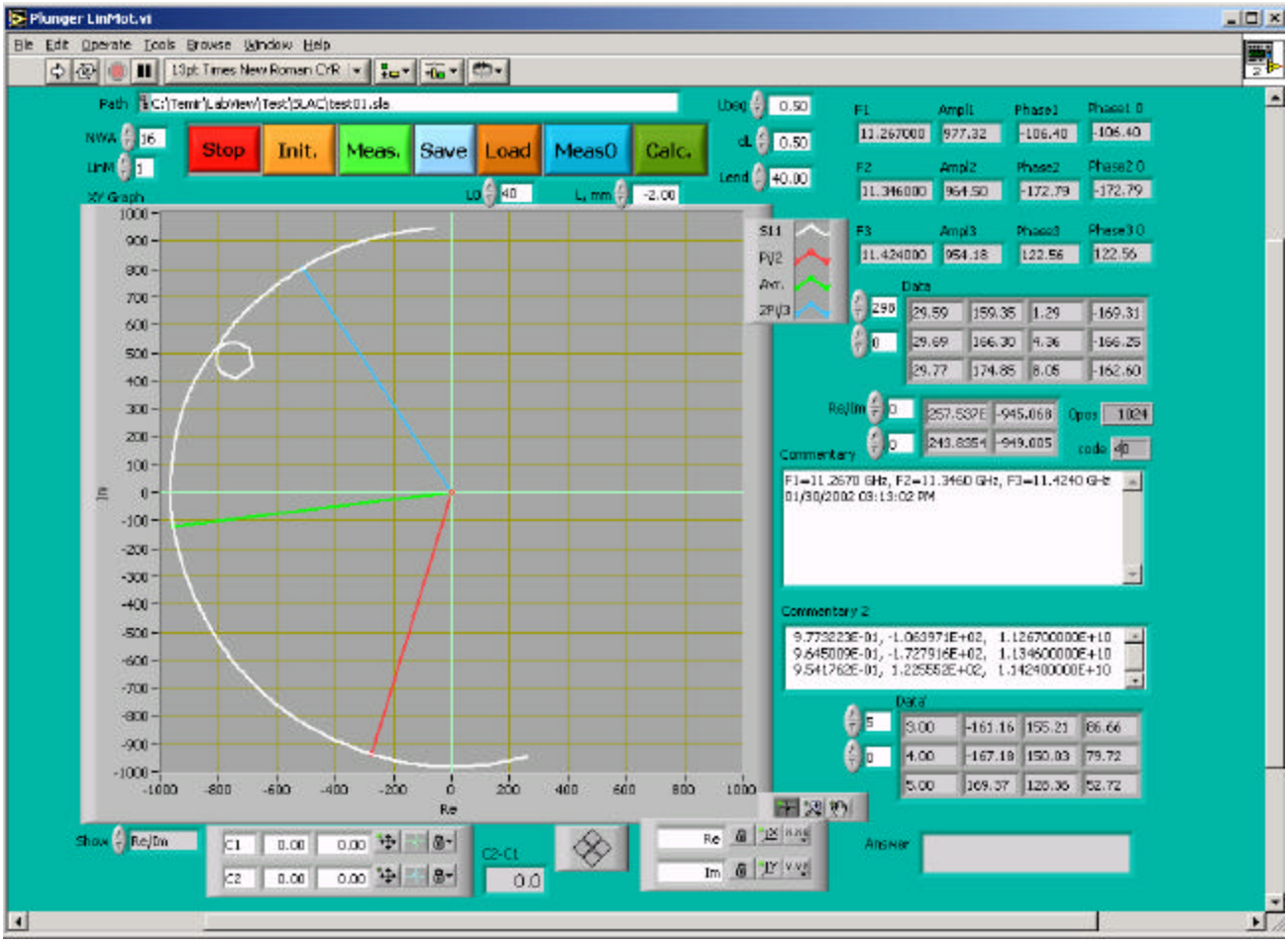


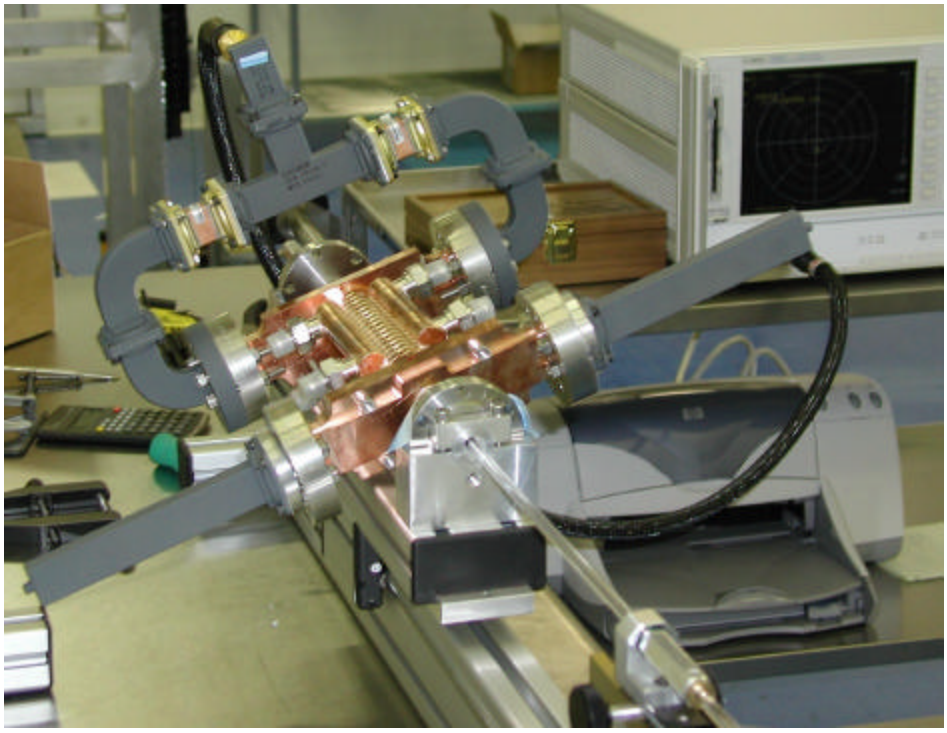
Short plunger measurement of the couplers.

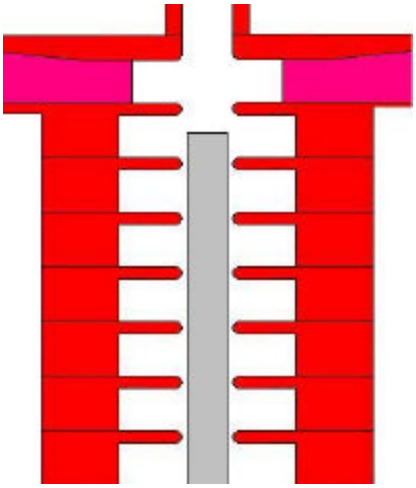




Long plunger measurement of the couplers.

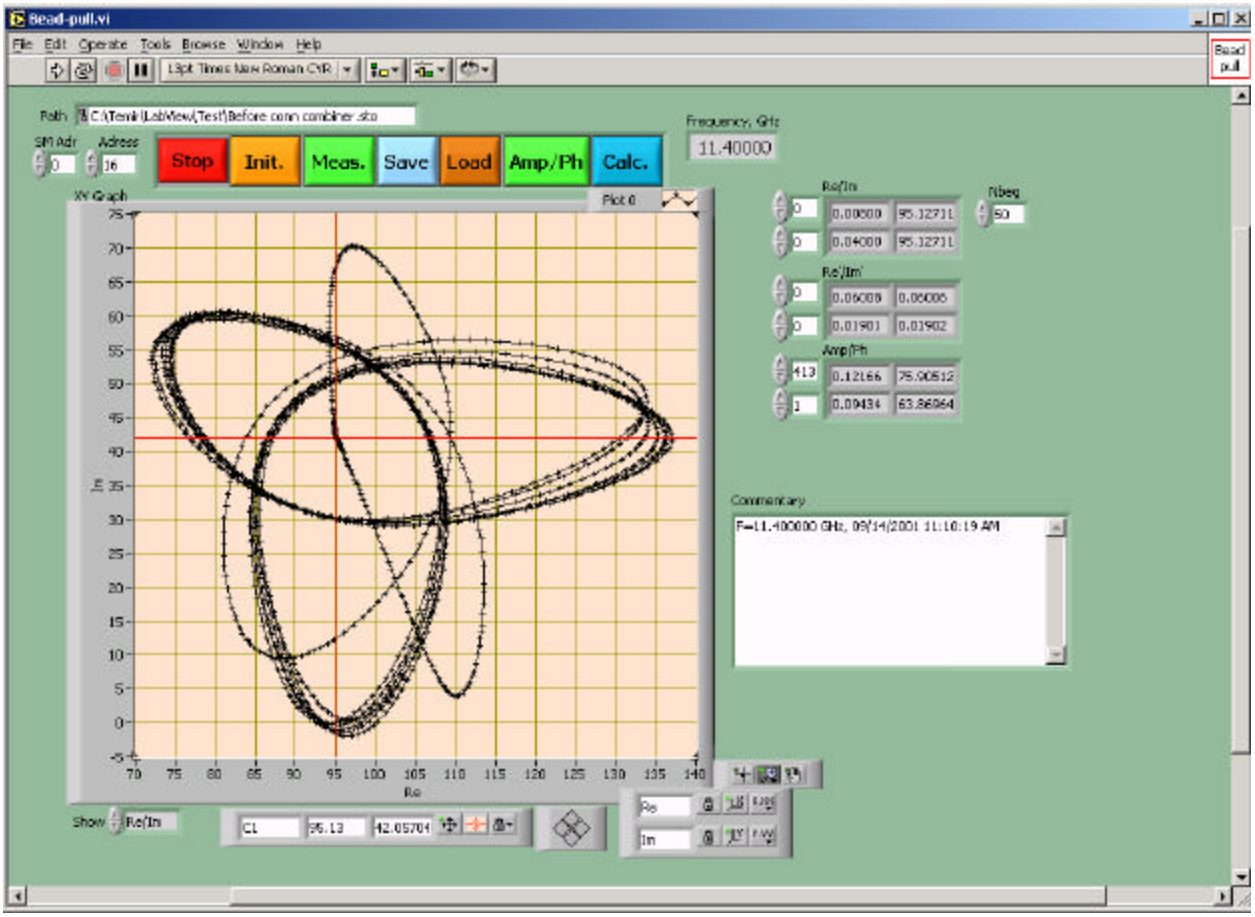


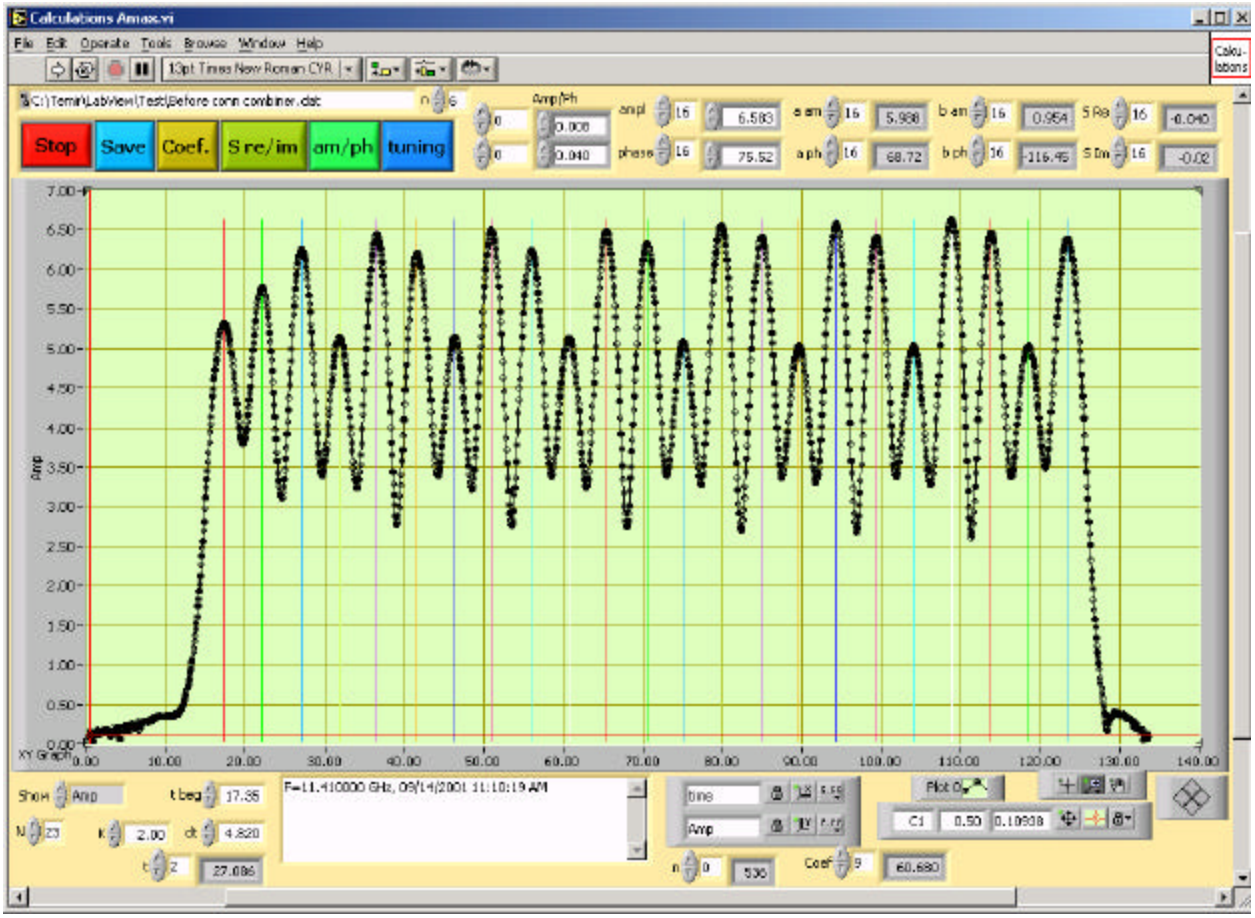




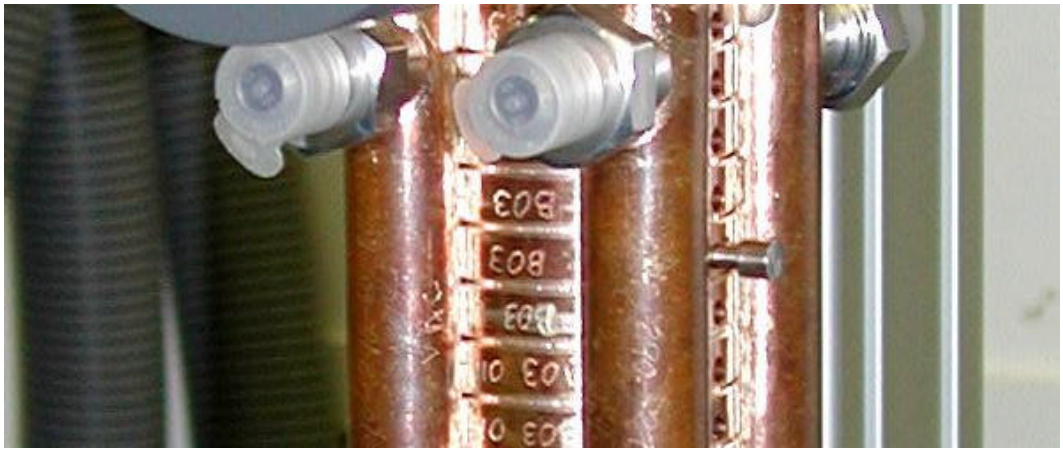
RF tuning of the structure by bead-pull.

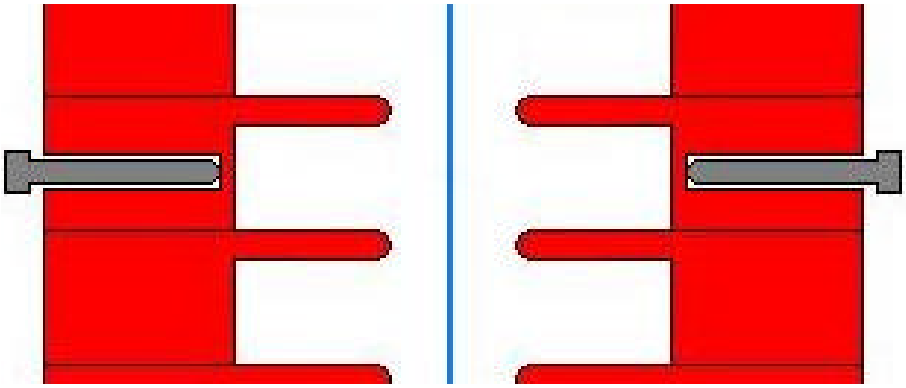
Bead-pull programm.

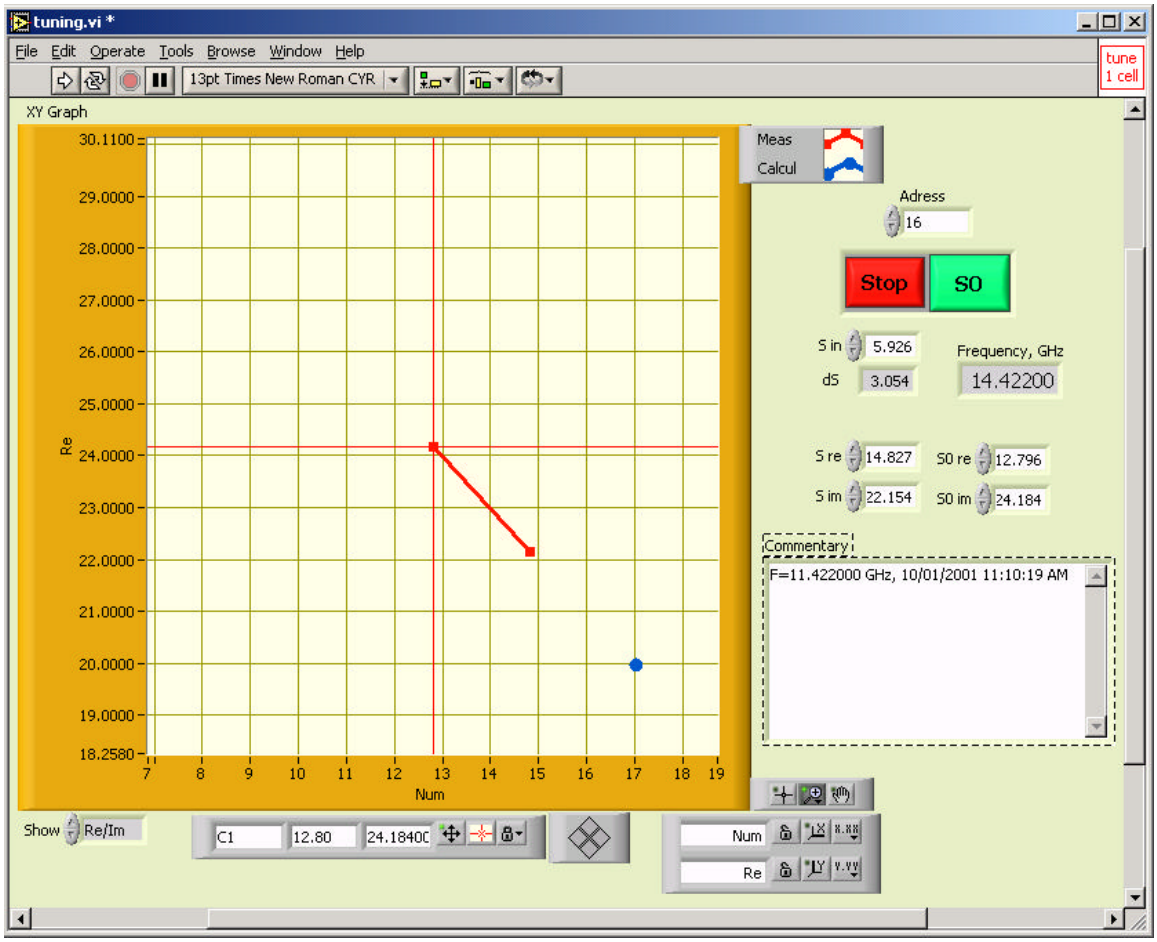
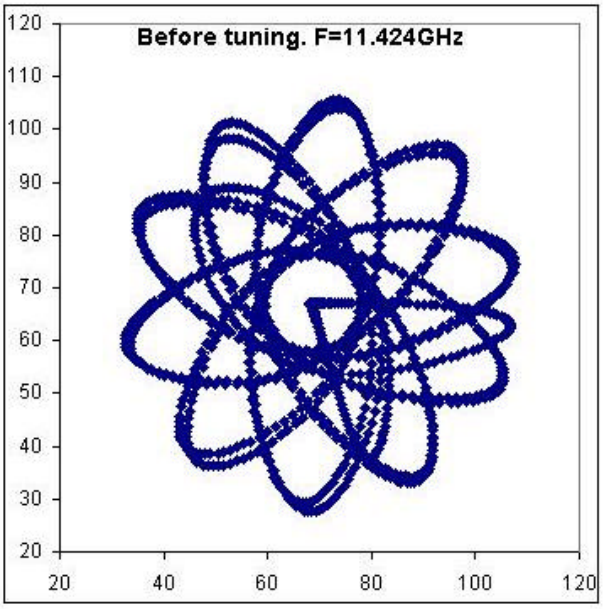
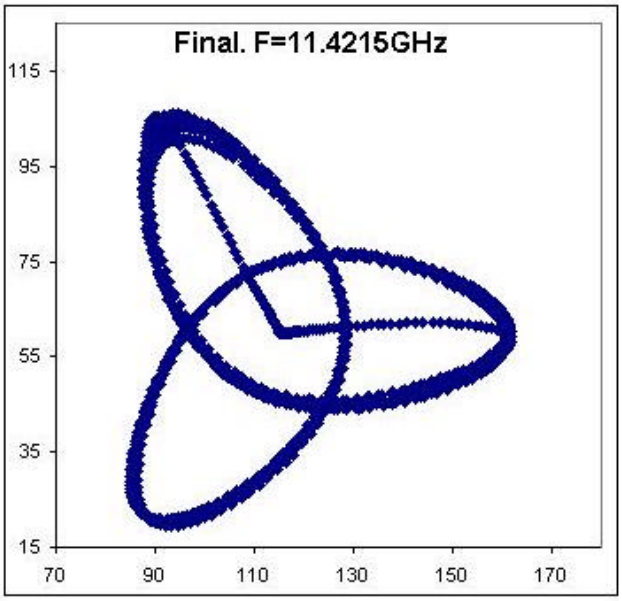
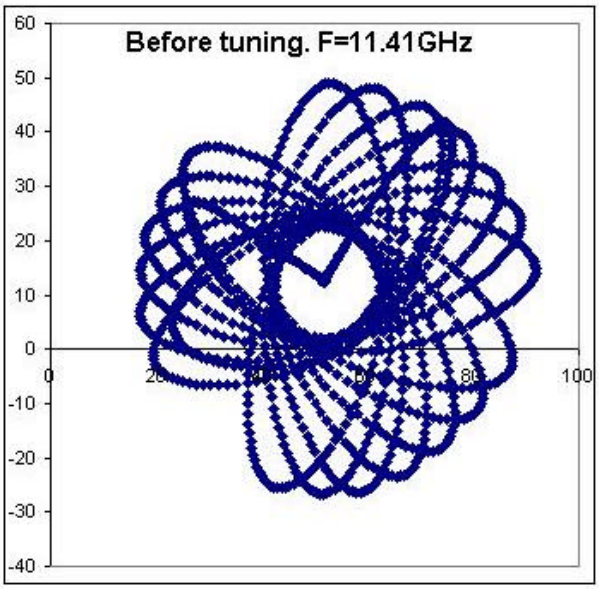
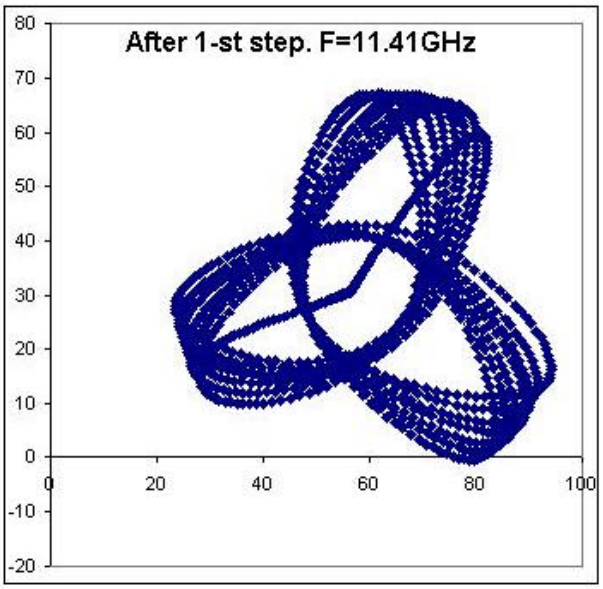
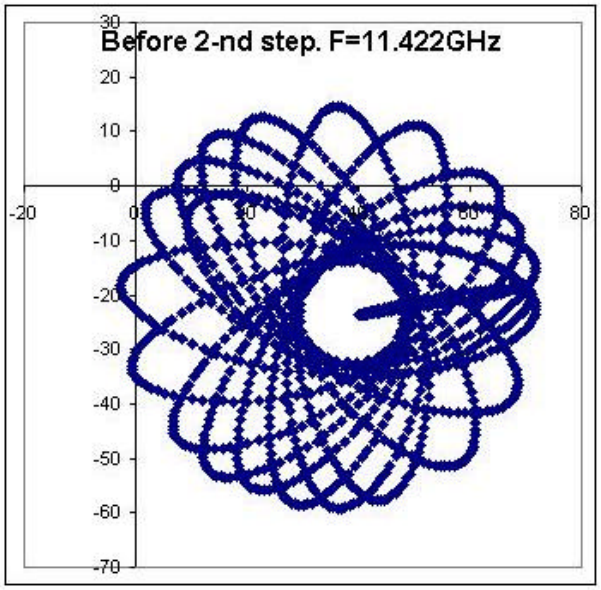
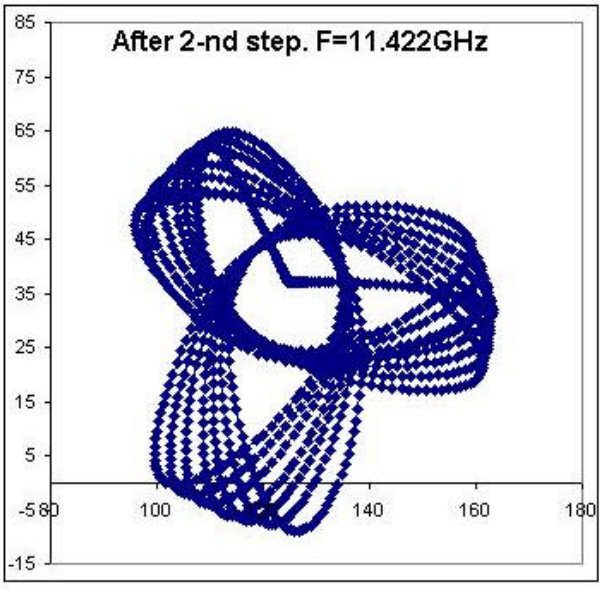




Tuning of the cell frequency.







Bead-pull data during tuning.